at1110paper_practice_test (v19)

1. Expand the following expression into standard form.

$$(4x - 9)(6x + 5)$$

$$24x^2 + 20x - 54x - 45$$

$$24x^2 - 34x - 45$$

2. Solve the equation.

$$(3x + 7)(5x - 4) = 0$$

$$x = \frac{-7}{3} \qquad x = \frac{4}{5}$$

3. Expand the following expression into standard form.

$$(2x - 9)(2x + 9)$$

$$4x^2 + 18x - 18x - 81$$

$$4x^2 - 81$$

4. Expand the following expression into standard form.

$$(2x + 7)^2$$

$$4x^2 + 14x + 14x + 49$$

$$4x^2 + 28x + 49$$

5. Factor the expression.
$$x^2 + 11x + 28$$

$$(x+4)(x+7)$$

6. Factor the expression.
$$25x^2 - 49$$

$$(5x-7)(5x+7)$$

7. Solve the equation with factoring by grouping.
$$8x^2 + 20x - 6x - 15 = 0$$

$$(4x-3)(2x+5) = 0$$
$$x = \frac{3}{4} \qquad x = \frac{-5}{2}$$

8. Solve the equation.
$$7x^2 - 24x - 74 = 4x^2 - 5x - 2$$

$$3x^2 - 19x - 72 = 0$$
$$(3x+8)(x-9) = 0$$
$$x = \frac{-8}{3} \qquad x = 9$$